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Body Dysmorphic Disorder: A Guide to Identification and Management for the Orthodontic Team

Adina Rosten, Dental Student, King's College London
Susan Cunningham PhD BChD, FDS RCS (Orth), MSc, MOrth, Professor of Orthodontics, Eastman Dental Institute, University College London
J Tim Newton PhD C Psychol AFBPS CSci, Professor of Psychology as Applied to Dentistry, King's College London

Address for correspondence:
J T Newton
Professor of Psychology as Applied to Dentistry
Population & Patient Health
King's College London Dental Institute
Floor 18, Tower Wing
Guy's Hospital
London
SE1 9RT

Tel: + 44 (0)20 7 188 1161
E-mail: tim.newton@kcl.ac.uk

Abstract

Body Dysmorphic Disorder (BDD) is a psychiatric disorder in which the individual has a disproportionate concern about a particular body part. With the increasing demand for aesthetic treatments it is likely that individuals with BDD may present for orthodontic or combined orthodontic and orthognathic treatment. In this review we shall outline the features of BDD and its prevalence, before discussing the best way for clinicians to identify and manage individuals with this disorder.

Body Dysmorphic disorder: an Overview

Diagnosis and Clinical Features

The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V) classifies BDD in the chapter of "Obsessive Compulsive and Related Disorders". The official DSM V Diagnostic criteria are (American Psychiatric Association, 2013):

1. Preoccupation with one or more perceived defects or flaws in physical appearance that are not observable or appear slight to others.
2. At some point during the course of the disorder, the individual has performed repetitive behaviours (e.g., mirror checking, excessive grooming, skin picking, reassurance seeking) or mental acts (e.g., comparing his or her appearance with that of others) in response to the appearance concerns.
3. The preoccupation causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
4. The appearance preoccupation is not better explained by concerns with body fat or weight in an individual whose symptoms meet diagnostic criteria for an eating disorder

The main symptom of BDD is criterion number 1 in DSM V: "Preoccupation with one or more perceived defects…" (Scott and Newton, 2011). The most common area that is focused on is the face or head e.g. head size, nose size, acne, balding, skin colour etc. (Phillips, 2004; Scott and Newton, 2011). However, this is not exclusive and other areas are also often a focus, sometimes with more than one area being an issue at any one time (Phillips, 2004). Orthodontic examples might include the shape and size of teeth and the perceived 'straightness' of teeth.

Patients suffering from BDD are often preoccupied by a range of repetitive behaviours, with the aim commonly being to camouflage or enhance the person's appearance (Phillips, 2004). Such behaviours include:

- Comparing with others including magazines, TV and other media
- Mirror checking
- Excessive grooming e.g. applying make up
- Constant reassurance seeking
- Camouflaging the body with clothes
- 'Skin Picking' (attempting to remove the imperfection by scratching or plucking it) (Windheim, Veale and Anson, 2011; Newton and Cunningham, 2013; Anthony and Farella, 2014; Jaiswal *et al.*, 2016)

In extreme cases, patients may even attempt suicide because of their high levels of distress (de Jongh and Adair, 2004). Phillips found that suicidal ideation is experienced by approximately 80% of individuals suffering from BDD and approximately 24% to 28% have actually attempted suicide (Phillips, 2007). Despite clearly being a psychiatric disorder, most patients with BDD attempt to seek help for their perceived physical problem rather than their mental health (Buescher and Buescher, 2006). This is problematic as patients are invariably not happy with any physical treatment they receive given the nature of the illness. Thus, it is extremely important that orthodontists are able to detect the signs of BDD and refer patients for psychiatric help accordingly.

Age of Onset

BDD typically begins during early adolescence but can occur during childhood (Phillips, 2004). In a study of 137 women and 63 men, the mean age of onset was 15.9 years for women and 17.5 for men (Phillips, Menard and Fay, 2006). Despite this, presentation of someone with BDD may often occur much later in life as it can go undiagnosed for many years (Scott and Newton, 2011). As a consequence of this, a lack of official diagnosis when a patient enters the clinic does not mean that they do not actually suffer from BDD, it could just mean that it has gone unnoticed. Therefore, a dental practitioner should proceed with caution before agreeing to treatment on the assumption that there is no problem simply on the basis that there is no known diagnosis of BDD.

Prevalence of Body Dysmorphic Disorder

Due to the shame associated with BDD, it is often difficult to ascertain exact prevalence. Furthermore, it is likely that there will be discrepancies between studies based on clinician-determined and self-reported rates as well as between different rating scales. It is also accepted that screening for a relatively rare disorder is often considered to be inaccurate (Castle, Rossell and Kyrios, 2006). This might explain why estimates in community samples vary between 0.7%-2.4% (Otto *et al.*, 2001; RIEF *et al.*, 2006; Bjornsson, Didie and Phillips, 2010). These figures are higher than prevalence figures for both anorexia and schizophrenia (American Psychiatric Association, 2013), both of which are more well-known disorders despite their lower prevalence rate. It is interesting to note that, unlike in eating disorders, which tend to afflict far more female sufferers than male sufferers, both genders seem to be affected equally by BDD. However, what does differ is the focus of the sufferer's attention. For example, men tend to be more concerned by body build, hair, height and genitals, whilst women tend to be more focused on their breasts, weight, hips and legs (Phillips and Diaz, 1997).

Veale et al. conducted a systematic review which showed that BDD had different estimated weighted prevalence in different settings (Veale *et al.*, 2016). For

example, whilst the weighted prevalence of BDD in adults in the community was estimated to be 1.9%, the figure for adult psychiatric inpatients was much higher at 7.4%. Interestingly and more importantly for orthodontists, they found that the weighted prevalence was 5.2% in orthodontics/cosmetic dentistry settings with prevalence ranging from 4.2% to 7.5%. They also found that the estimated weighted prevalence was higher amongst women, at 7.9%, than amongst men, at 2.5% (Veale *et al.*, 2016). These figures are significantly higher than those for the general population, confirming that orthodontists need to be aware of the disorder and know the signs so that they can detect it and refer the patient for the relevant help. Unfortunately, there are only 3 published empirical studies, which discuss prevalence rate in dental settings, 2 of which are specific for orthodontics and 1 of which relates to cosmetic dentistry. This means it is difficult to establish a) how reliable this data is and b) whether prevalence varies between orthodontic clinics and cosmetic dentistry clinics. At first glance, it appears that BDD is more common amongst patients seeking orthodontic treatment with prevalence of 7.5% and 5.2% compared with 4.1% for those seeking cosmetic dental treatment. However, further studies are required to ascertain whether this is indeed the case.

Search Terms

In order to identify relevant articles for this review the MEDLINE database was searched from 1946 to present. The following search terms were used:

1. *Body dysmorphic disorder or Body Dysmorphic Disorders* which yielded 1347 results
2. *Dysmorphophobia or Body Dysmorphic Disorders* which yielded 871 results
3. *1 or 2* which yielded 1468 results
4. *Dent** which yielded 536827 results
5. *Malocclusion or orthodont* or Orthodontics* which yielded 64070 results
6. *4 or 5* which yielded 563389 results
7. *3 and 6* which yielded 36 results

Abstracts from the 36 results from the literature search were reviewed and relevant manuscripts were identified. The following review is based primarily on these manuscripts and any relevant references found within these manuscripts.

Assessment of patients who are suspected of having BDD

Before agreeing to carry out any form of dental treatment, it is important that any individuals suspected of suffering from BDD are assessed to ensure that they are suitable for treatment. An orthodontist may suspect BDD if a patient is overly concerned by defects such as relatively minor misalignment of a midline, small amounts of interdental spacing and/or mild dental rotations. In addition, if the patient has a history of 'healthcare shopping' i.e. seeking treatment or opinions from numerous orthodontists, this should raise concerns. This is because such patients are rarely satisfied with treatment offered to them and this can have far-reaching effects for the orthodontist treating them (Polo, 2011).

In order to encourage the patient to be as honest as possible during an assessment, it is important for the orthodontist to create a 'safe' environment for the patient. This entails ensuring that the patient is aware that any information they disclose will remain confidential, minimising the number of people in the room so that the patient feels less intimated, and allowing sufficient time to assess the patient and to reduce the likelihood that the patient feels they are being rushed and pressurised (Scott and Newton, 2011). Despite a clinician's best efforts to ensure these settings, it is important to realise that patients attending an orthodontic clinic for example are hoping to be offered treatment such as braces. As a result, some patients might have the temptation to exaggerate the truth and modify their answers to show how much their dental problem is impacting them in an attempt to encourage the orthodontist to agree to offer treatment (Hepburn and Cunningham, 2006). This could skew the assessment results, so it is important that the clinician does not necessarily take the results at face value and attempts to analyse all contributing factors and, where possible, use more than one assessment tool.

There are a variety of screening tools that can be used to establish whether a patient suffers from BDD. Veale et al. found that the most commonly used tool was the Body Dysmorphic Disorder Questionnaire (BDDQ) (Veale *et al.*, 2016) (see figure 1). The questionnaire is a brief, self-reported measure, which asks about concerns with physical appearance and requires the patient to read each question and circle the answer they feel is most relevant for them. This questionnaire has been demonstrated to have a high specificity and sensitivity in a range of settings, indicating that it is a useful screening tool (Brohede *et al.*, 2013). Question D1 establishes whether the patient is preoccupied with the defect in question. D2 rules out anorexia and D3/4 assess the impact the issue has on the patient's life. An orthodontist should be concerned and refer a patient on for a further assessment if a patient answers 'YES' to both parts of question 1 and if they answer 'YES' to any of question 3 AND/OR question 4b) or c). There are alternative questionnaires which can be used and clinicians may wish to explore which they would find easiest to use in their practice, for example Hepburn & Cunningham (2005) BDD used a BDD modified version of the Yale-Brown Obsessive Compulsive Scale, which comprises three questions to establish whether a diagnosis of BDD is appropriate, followed if appropriate by 12 questions to establish the symptoms experienced by the person and their severity during the previous week. However, it is important to realise that any questionnaire should only be used as a screening tool and not as a diagnostic one.

In order to diagnose BDD officially, a face-to face interview is recommended by a trained clinician (Phillips, 1996). The implication of this in the dental practice is that the dental clinician can screen for BDD and if they suspect BDD, the clinician can then refer the patient to a specialist for further assessment. However, they should not automatically assume presence of BDD without first carrying out this step as it is possible that the patient could, for example, be suffering from an eating disorder which would overrule a diagnosis of BDD and may only be detected by a trained psychiatrist. For patients attending for highly invasive treatment such as combined orthodontic and orthognathic surgery, which may

attract a higher proportion of patients with BDD, service providers might consider involving psychological support to screen patients.

Alongside assessing for BDD, orthodontists should consider assessing patients suspected of suffering from BDD for suicide ideation. Phillips et al. demonstrated that patients suffering from BDD had a 78.0% lifetime suicidal ideation and 27.5% had actually attempted suicide (Phillips *et al.*, 2005). Figure 2 shows an example questionnaire that can be given to patients to establish their level of suicidal ideation. If a patient demonstrates clear suicidal ideation, they should be referred for urgent formal assessment by psychological or psychiatric services. If the clinician thinks that the patient is in imminent danger, they should be sent to A&E for an immediate psychiatric assessment, accompanied if possible.

Figure 1 about here. Caption: The Body Dysmorphic Disorder Questionnaire (Veale *et al.*, 2016)

Figure 2 about here. Caption: The Marks & Matthews Suicidal Ideation Scale (Marks and A.M, 1979)

Is it safe to carry out the treatment?

Orthodontists are trained to treat people and help them with any dental related problems they may have. As a result, it might seem counter-intuitive to them to refuse a patient treatment, when they are clearly in distress. However, once a patient has been formally diagnosed with BDD, provision of the requested physical cosmetic treatment is not advisable. The reason for this can be demonstrated by a study conducted by Phillips et al. in which information was retrospectively reviewed about the frequency of non-psychiatric treatment received in a variety of areas and a patient's opinion of how improved their defect appeared. The study found that 61.4% of treatments resulted in no change in concern with regard to the specific body part and 68.7% of treatments resulted in no improvement or worsening in overall BDD severity (Phillips *et al.*, 2001). The reason for this result was that patient's worries often simply

transferred to another body area or they started to worry that the area that had been treated would simply become ugly again. The fact that only 7.3% of all treatments led to a decrease in concern over the body part and in BDD severity implies that provision of the requested treatment is clearly not the optimal way of managing patients with BDD.

Unfortunately for the treating clinician, carrying out treatment on a patient with BDD may prove not only detrimental to the patients themselves but may also result in numerous adverse effects for the orthodontist. Typically, BDD patients will be unsatisfied with any treatment that is less than "perfect" which is often only attainable in the patient's mind. Thus, they will often perceive any orthodontic treatment or orthognathic surgery as a failure and may, subsequently, raise complaints or express dissatisfaction (Winfree, Rouse and Brown, 2012). As a result of this perceived failure, some patients will attempt litigation against their clinician. A survey conducted amongst the American Society for Aesthetic Plastic Surgery Members (ASAPS) revealed that 40% of respondents had been threatened by a patient suffering from BDD; 29% had been threatened legally, 2% physically and 10% both legally and physically (Sarwer, 2002). In 2001 there was a case (Lynn vs Hugo) ('Lynn G. v. Hugo', 2001) in which a patient took legal action against her plastic surgeon following a liposuction and a full abdominoplasty. The patient had signed a consent form indicating that she was aware of the risks she would be undertaking if treatment was carried out. Despite this, following dissatisfaction with treatment, she took legal action on the grounds that her ability to consent was impaired because she was suffering from BDD. Although the patient did not succeed in her case due to there being insufficient evidence that she indeed suffered from a mental disorder, this case sets an interesting precedent that a patient suffering from BDD might not actually be 'fit' to consent. As a result, any treatment an orthodontist carries out on such a patient may not actually be legally consented to and the orthodontist may be found liable in a court of law. In extreme cases, a patient suffering from BDD may assault their clinician and there are currently 2 known cases of clinicians being murdered by BDD patients (Crerand, Menard and Phillips, 2010), making this an extremely rare and unusual eventuality but

one that highlights the importance of being vigilant when it comes to screening for BDD.

The implications are that neither an orthodontist nor an orthognathic surgeon should carry out any treatment on a patient who has suspected BDD. Rather, the treating clinician should explain to the patient, in a sensitive manner, that treatment is not in their best interest and they should recommend a referral to psychiatric or psychological services for further treatment (Scott and Newton, 2011).

Conclusion

BDD is a rare condition but may have a disproportionate impact on orthodontic practice. Patients suffering from BDD are likely to seek orthodontic treatment, often combined with orthognathic surgery. This is problematic as such treatment has been shown to rarely improve a patient's perception of their defect and, in fact, can often make their problem worse. As such, it is vital that orthodontists and orthognathic surgeons alike are aware of the screening tools that can be used in their clinics for BDD and are educated on how best to manage such patients by referring them to specialist psychiatric services for further help, rather than carrying out the requested treatment.

Useful Resources for Clinicians

1. For further information on BDD, including relevant reading and online questionaires see the Body Dysmorphic Disorder Foundation http://bddfoundation.org/
2. For guidance on assessment of people with BDD, see Cunningham SJ, Feinman C. Psychological assessment of patients requesting orthognathic treatment and the relevance of body dysmorphic March 2011 disorder. Br J Orthod 1998; 25: 293–298.
3. For information leaflets suitable for patients, and for information for clinicians working with individuals with body dysmorphic disorder, see

the National Institute for Health and Clinical Excellence (NICE) http://www.nice.org. uk/Guidance/CG31)

4. For a patient friendly website if wanting to offer patients a place that will understand them, see 'Mind" and direct them to the BDD specific section https://www.mind.org.uk/information-support/types-of-mental-health-problems/body-dysmorphic-disorder-bdd/#.WZHLpXeGPOQ

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